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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,091	12/21/2001	Stephen R. Forrest	10644/11902	8289

26646 7590 02/07/2006

KENYON & KENYON LLP  
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NEW YORK, NY 10004

EXAMINER
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YAMNITZKY, MARIE ROSE

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,091

Applicant(s)

FORREST ET AL.

Examiner

Marie R. Yamnitzky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 75-111 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 75-85, 87-98, 100-105 and 107-111 is/are rejected.
- 7) ☒ Claim(s) 86, 99 and 106 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. This Office action is in response to applicant's amendment filed November 16, 2005, which amends the specification and claims 75, 88 and 101, and adds claims 110 and 111.

Claims 75-111 are pending.

2. The rejections under 35 U.S.C. 102(b) and 103(a) based on JP 63-300576, as set forth in the Office action mailed June 16, 2005, are overcome by applicant's amendment filed November 16, 2005.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 75-85, 87-98, 100-105 and 107-111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 6,300,612 B1).

The present application has an effective U.S. filing date that is between the filing dates of Yu's non-provisional application and Yu's priority provisional application.

In making the rejection based on the Yu patent under 35 U.S.C. 103(a) rather than 102(e), the examiner has taken into consideration the disclosure of Yu's priority provisional application (60/073,347). The provisional application should be available for applicant's review through Public PAIR. While Yu's priority provisional application discloses less than Yu's patent, it is the examiner's position that present claims 75-85, 87-98, 100-105 and 107-111 are obvious over the portions of Yu's patent that are supported by Yu's provisional application.

In particular, in the patent, see column 1, lines 20-38, c. 5, l. 29-42, c. 6, l. 59-c. 7, l. 49, c. 11, l. 26-30, c. 11, l. 48-c. 12, l. 2, c. 13, l. 28-c. 14, l. 15, Examples 5-7 (c. 17-18), Example 10 (c. 19-20), Example 14 (c. 21-22) and Figs. 3A, 3B, 3'A, 3'B, 17 and 18. In the '347 provisional application, see page 1, lines 10-28, p. 6, l. 30-p. 7, l. 8, p. 9, l. 6-p. 10, l. 36, p. 13, l. 14-p. 14, l. 30, Examples 5-7 (pp. 20-21), Example 10 (pp. 23-24), Example 14 (pp. 27-28), and Figs. 3(A)-(B), 3'(A)-(B) and 17.

Yu discloses photodetectors having a plurality of organic photosensitive subcells stacked in superposed relationship over a substrate, each subcell having a different spectral sensitivity/absorption characteristic. A conductive layer is disposed between and in superposed relationship with at least two of the subcells.

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Yu discloses that a photoactive layer may be made of a single organic semiconductor material, a blend of organic semiconductor materials, or a multilayer arrangement of organic semiconductor materials. Yu discloses a device having a photoactive layer comprising a heterojunction between two organic semiconductor materials. Yu does not disclose a specific example of a stacked device in which at least two subcells, or all subcells, comprise a heterojunction between two organic semiconductor materials. Given Yu's disclosure that a heterojunction bilayer may be used for the same purpose as a single semiconductor material, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to utilize a heterojunction bilayer in place of each of two or more of the subcells in a stacked device. It would have been within the level of ordinary skill of a worker in the art at the time of the invention to determine suitable heterojunction bilayers to be used in a stacked device based on the desired photodetecting capabilities of the device.

6. Claims 86, 99 and 106 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY  
February 03, 2006



MARIE YAMNITZKY  
PRIMARY EXAMINER

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